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KALLSTROEMIA PARVIFLORA (ZYGOPHYLLACEAE): NEW TO LOUISIANA

MICHAEL H. MACROBERTS AND BARBARA R. MACROBERTS
Bog Research, 740 Columbia,
Shreveport, Louisiana 71104
Herbarium, Museum of Life Sciences
Louisiana State University-Shreveport
Shreveport, Louisiana 71115
mmacrobe@lsus.edu

ABSTRACT

Kallstroemia parviflora Norton is documented as naturalized in Louisiana from a population in Shreveport, along the Caddo and Bossier Parish line.

KEY WORDS: *Kallstroemia parviflora*, Zygophyllaceae, Louisiana

On 25 July 2011, we discovered *Kallstroemia parviflora* Norton, also known as caltrop, to be common along a 3 km stretch of the Southern Extension of the Clyde E. Fant Memorial Parkway in Shreveport, Louisiana, centered on 32°28'38.99" N, 93°41'28.83" W, at about 70 meters elevation (Figs. 1, 2, 3). *Kallstroemia parviflora* has previously been reported from Mississippi, Missouri, Illinois, Texas, Oklahoma, Kansas, and westward but not from Louisiana or Arkansas (MacRoberts 1984; Smith 1994; Thomas & Allen 1998; Turner et al. 2003; Kartesz & Meacham 2005; NatureServe 2011; USDA Plants 2011). Its closest known location is in Gregg County, Texas (Turner et al. 2003), about 100 km west of the Louisiana locality. Specimens were collected (*MacRoberts & MacRoberts 8900, 8901, 8903, 8904*) and deposited at LSUS and LSU.

Figure 1. Aerial showing Caddo and Bossier Parish boundaries (yellow line) and the two parkways described in the text.

The Clyde Fant Parkway is on the Red River alluvial plain and parallels the river, being variously between 100 and 400 m from it. There are no buildings between the parkway and the river. The land is either pasture or mowed park and parkway right-of-way, and the parkway is highly disturbed and frequently mowed. This probably has assisted *Kallstroemia parviflora* because of its low sprawling habit. Associated species include *Cenchrus spinifex, Chamaesyce maculata, Chrysopsis pilosa, Coronopus didymus, Cynodon dactylon, Eragrostis minor, Mollugo verticillata, Oenothera laciniata, Paspalum notatum, Polygonum aviculare, Portulaca oleracea,* and *Tribulus terrestris*, half of which are not natives.

Whether or not the species has been brought into this area by human activity is not known, but road construction and frequent mowing may have been responsible for its presence and have contributed to its spread. It does occur on the deposition side of the river and since *Kallstroemia parviflora* is common in north-central Texas and south-central Oklahoma (Kartesz & Meacham 2005; Turner et al. 2003) it could have been transported down the river naturally.

Politically, and ironically, this *Kallstroemia parviflora* population occurs in both Bossier and Caddo parishes, because while it occurs on the west (Caddo Parish) side of the Red River, small bits of Bossier Parish also occur on the west side of the Red River because the river, which was the original parish boundary in the mid-1800s, has changed course through natural meander and man-made alterations ("cutoffs") (Joiner 2006). Thus, while the center of the population is politically or technically in Bossier Parish, ecologically and biogeographically this area should be considered to be Caddo Parish until populations are found on the east side of the river. We searched for *K. parviflora* along the frequently mowed A.R.Teague Parkway on the Bossier Parish side of the river but found none.

Figure 2. *Kallstroemia parviflora* on the Clyde Fant Parkway, habit.

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Figure 3. *Kallstroemia parviflora* on the Clyde Fant Parkway, flowers.